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Cooperative Flax Trials in the Spring Flax Region-1985



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This publication is a joint report of cooperative investigations by the State agricultural experiment stations, Canadian Department of Agriculture, Canadian Province universities, and the U.S. Department of Agriculture that contains preliminary data, interpretation of which may be modified by additional experimentation.

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COOPERATIVE FLAX TRIALS IN THE SPRING FLAX REGION--1985

by Jerry F. Miller, James J. Hammond, and Thomas J. Gulya¹

REGIONAL VARIETAL TRIALS IN 1985

The Cooperative Regional Nursery in 1985 consisted of varieties grown in nurseries at 15 locations. The varieties included in the trials are listed in table 1, and the stations from which data were obtained are given in table 2.

This report covers agronomic, disease, and seed-quality data reported from the stations. The Cooperative Regional Nursery has been grown for 47 years, from 1939 to 1985, and data have been reported from a total of 1,229 trials. A total of 351 varieties or selections have been grown for 1 or more years.

All data are reported in the metric system. Several conversion factors are shown to aid in converting figures to the other system.

Conversion Factors

$0.777 \times \text{g/L} = \text{lb/bu}$

$0.892 \times \text{kg/ha} = \text{lb/acre}$

$0.01593 \times \text{kg/ha} = \text{bu/acre}$

$\text{NMR reading/wt of sample/constant} = \text{oil percent}$

LEAST SIGNIFICANT DIFFERENCE

Plot size and number of replications of the different tests vary, but most plots were near 5 m long with three replications. Least significant differences at the 5-percent point have been calculated for all stations. Average seed yields of the various tests, together with the least significant differences calculated both in kilograms and in percent of the mean, are shown in table 2.

Agronomic data from the nurseries by stations are shown in table 3. Varieties are listed in systematic order with a column indicating yield rank. Included with the experimental varieties were four check varieties (Bison, Linott, Culbert, and Dufferin). Additional varieties are included at a number of stations. In table 5, the comparative yield of all varieties at all stations is shown as percent of check.

¹Miller and Gulya are research geneticists, U.S. Department of Agriculture, Agricultural Research Service, and Hammond, professor in the Department of Agronomy, all at the North Dakota State University, Fargo, ND 58105.

TABLE 1. VARIETIES OF FLAX GROWN IN COOPERATIVE REGIONAL NURSERIES
IN 1985

VARIETY OR CROSS	C.I. NUMBER	SOURCE	YEAR ENTERED
BISON	389	ND	1927
LINOTT	2522	CAN	1967
CULBERT	2776	MN	1972
DUFFERIN	2814	CAN	1975
M903 CULBERT/5017	2938	MN	1980
N213 CI2847/CULBERT 79	3096	ND	1982
N306 Z2236/CI2838	3101	ND	1984
U313 CULBERT/BISON M3P3 3113-1	3105	ND	1984
FP796 DUFFERIN/2820	3107	CAN	1984
FP800 KUBANSKIJ/LINOTT (VIMY)	3108	CAN	1984
SDT8404 NRSTR/2444/LNT/NDR	3127	SD	1985
SDT8405 BFP/CI2915	3128	SD	1985
SDT8406 M803/LNT/NRD	3129	SD	1985
SDT8407 LNT/2444/LNT/2534	3130	SD	1985
SDT8412 BFP/CULB	3131	SD	1985
SDT8414 M803/LNT/NRD	3132	SD	1985
N407 Z158/CULBERT 79	3133	ND	1985
N410 Z1067/CULBERT 79	3134	ND	1985
N412 Z181/CULBERT 79	3135	ND	1985
N421 Z1067/CULBERT 79	3136	ND	1985
U404 CULB/BSN/CULB/BIS M3P3 3056-2	3137	ND	1985
U406 CULB/BSN/CULB/BIS M3P3 3113	3138	ND	1985
U412 CULB/BSN/CULB/BIS M3P3 3436-2	3139	ND	1985
M413 H.O. 1135	3140	MN	1985

Table 2. AVERAGE YIELDS OF SEED AND LEAST SIGNIFICANT DIFFERENCES OF FLAX
CULTIVARS GROWN IN COOPERATIVE REGIONAL NURSERIES IN 1985

STATE AND STATION	AVG. YIELD KG/HA	LSD (0.05)	
		KG	PERCENT
MINNESOTA			
LAMBERTON (EARLY)	2133	383	18
CROOKSTON (EARLY)	600	83	14
SOUTH DAKOTA			
BROOKINGS (EARLY)	2219	460	21
WATERTOWN (EARLY)	1573	214	14
NORTH DAKOTA			
FARGO (EARLY)	1709	238	14
FARGO (LATE)	1499	401	27
CARRINGTON (EARLY)	1198	233	19
MINOT (EARLY)	1167	304	26
WILLISTON (EARLY)	390	93	24
LANGDON (EARLY)	1985	256	13
CANADA			
MORDEN (EARLY)	1342	203	15
PORTAGE (EARLY)	1104	147	13
PORTAGE (LATE)	927	115	12
WINNIPEG (EARLY)	1786	194	11
SASKATOON (EARLY)	1324	144	11

TABLE 3. YIELD AND OTHER DATA FOR FLAX VARIETIES AND SELECTIONS GROWN IN REGIONAL TRIALS IN 1985 AT DIFFERENT LOCATIONS

LAMBERTON, MINNESOTA (EARLY)										SEED 5/ 3 HARVESTED	1.86000000	SQUARE METERS
DAYS FROM SOWING TO					L O	W I	P A	TEST	1000 SEED	OIL	IODINE	YIELD
CI	YEARS	FIRST	FULL	HEIGHT	D	L	M	WT	WT	VALUE	KG	%
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	G	T	O	G/L	GMS	%	RANK	PER HA
389	23			60			5		405	176	22	1840
2522	16			57			4		412	181	20	1928
2776	14			59			4		416	187	8	2250
2814	11			68			5		428	187	2	2362
2938	5			58			5		410	180	12	2181
3096	3			61			4		417	191	10	2213
3101	2			59			3		424	183	5	2308
3105	2			65			3		412	182	13	2159
3107	2			59			7		414	182	3	2353
3108	2			61			6		406	180	24	1654
3127	1			58			4		393	182	1	2530
3128	1			60			4		418	181	7	2277
3129	1			56			4		416	181	21	1921
3130	1			56			4		452	173	16	2120
3131	1			56			4		422	187	9	2222
3132	1			55			4		430	181	6	2290
3133	1			57			4		424	182	14	2146
3134	1			59			4		425	183	4	2326
3135	1			61			4		419	186	11	2188
3136	1			56			4		417	183	17	2069
3137	1			60			4		413	182	15	2130
3138	1			64			4		407	184	18	2059
3139	1			57			3		418	182	19	1962
3140	1			57			4		458	173	23	1702

STATION AVERAGE 2133 KG PER HECTARE;LSD(.05) = 383 KG/HA. ; F = 2.4443

CROCKSTON, MINNESOTA (EARLY)										SEED 5/ 3 HARVESTED	4.30600000	SQUARE METERS
DAYS FROM SOWING TO					L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD
CI	YEARS	FIRST	FULL	HEIGHT	D	L	L	WT	WT	VALUE	KG	%
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	G	T	T	G/L	GMS	%	RANK	PER HA
389	45	59	61	105	64						21	559
2522	18	52	59	103	63						13	590
2776	14	54	61	107	53						24	531
2814	11	64	67	109	64						3	651
2938	5	58	62	106	54						3	651
3096	3	56	62	107	62						10	607
3101	2	54	61	107	59						7	618
3105	2	63	65	106	62						17	574
3107	2	61	64	103	67						2	674
3108	2	54	60	103	64						1	687
3127	1	50	59	104	60						18	571
3128	1	51	60	104	58						19	562
3129	1	52	60	105	57						19	562
3130	1	52	60	105	56						5	639
3131	1	51	59	104	56						22	558
3132	1	52	59	106	55						9	617
3133	1	51	59	104	53						23	532
3134	1	51	59	105	55						15	589
3135	1	52	60	105	57						12	594
3136	1	53	60	106	56						7	618
3137	1	61	63	106	55						11	597
3138	1	62	65	107	59						13	590
3139	1	60	63	106	60						16	582
3140	1	48	57	110	57						6	633

STATION AVERAGE 600 KG PER HECTARE;LSD(.05) = 83 KG/HA. ; F = 1.9981

BROOKINGS, SOUTH DAKOTA (EARLY)										SEED 5/ 1 HARVESTED	2.10000000	SQUARE METERS
DAYS FROM SOWING TO					L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD
CI	YEARS	FIRST	FULL	HEIGHT	D	L	L	WT	WT	VALUE	KG	%
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	G	T	T	G/L	GMS	%	RANK	PER HA
389	45			61					398		19	2119
2522	18			55					409		22	2012
2776	13			53					412		18	2120
2814	10			64					423		3	2439
2938	4			59					415		9	2258
3096	2			53					416		23	1996
3101	1			59					418		17	2147
3105	1			65					404		16	2150
3107	1			60					407		4	2398
3108	1			61					421		15	2152
3127	1			59					412		1	2536
3128	1			56					416		10	2257
3129	1			59					438		12	2244
3130	1			54					440		24	1834
3131	1			54					413		13	2219
3132	1			53					421		21	2049
3133	1			60					421		2	2450
3134	1			60					415		5	2382
3135	1			62					407		20	2106
3136	1			57					413		8	2266
3137	1			61					411		6	2380
3138	1			66					407		7	2284
3139	1			56					408		14	2184
3140	1			60					454		11	2253

STATION AVERAGE 2219 KG PER HECTARE;LSD(.05) = 460 KG/HA. ; F = 1.0096

TABLE 3. YIELD AND OTHER DATA FOR FLAX VARIETIES AND SELECTIONS GROWN IN REGIONAL TRIALS IN 1985
AT DIFFERENT LOCATIONS--Continued

WATERTOWN, SOUTH DAKOTA (EARLY)					SEEDED 5/ 2 HARVESTED					2.10000000 SQUARE METERS				
DAYS FROM SOWING TO					L	W	W	1000						
					O	I	I	TEST	SEED	OIL	IODINE	YIELD		
CI	YEARS	FIRST	FULL	HEIGHT	D	L	L	WT	WT	VALUE	KG		%	
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	CM	G	T	T	G/L	GMS	%	RANK	PER HA	CHECKS
389	21			55						406	188	20	1482	98
2522	12			45						412	193	24	1358	90
2776	8			47						414	198	13	1592	105
2814	6			53						422	195	7	1623	107
2938	3			47						413	190	12	1601	106
3096	2			51						436	194	10	1617	107
3101	2			50						420	192	11	1611	106
3105	2			55						407	192	18	1520	100
3107	2			53						415	192	16	1568	104
3108	2			53						427	192	3	1669	110
3127	1			48						412	188	23	1433	95
3128	1			49						412	191	21	1466	97
3129	1			48						437	187	17	1523	101
3130	1			51						452	180	4	1636	108
3131	1			50						420	192	19	1492	99
3132	1			48						425	184	15	1579	104
3133	1			48						423	187	7	1623	107
3134	1			48						418	186	22	1463	97
3135	1			51						411	190	2	1699	112
3136	1			50						415	189	13	1592	105
3137	1			54						411	189	5	1631	108
3138	1			55						408	192	1	1712	113
3139	1			52						410	189	7	1623	107
3140	1			50						449	179	6	1625	107
STATION AVERAGE 1573 KG PER HECTARE:LSD(.05) = 214 KG/HA. : F = 1.3364														

STATION AVERAGE 1573 KG PER HECTARE;LSD(.05) = 214 KG/HA. ; F = 1.3364

FARGO ,					NORTH DAKOTA (EARLY)					SEED 0/ 0 HARVESTED		3.44400000 SQUARE METERS			
DAYS FROM SOWING TO					L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD			
CI	YEARS	FIRST	FULL	HEIGHT	D	L	L	WT	WT	VALUE		KG	%		
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	CM	G	T	T	G/L	GMS	%	RANK	PER HA	CHECKS	
389	44			63		2	4			405	181	23	1527	95	
2522	18			58		7	9			410	189	19	1582	98	
2776	13			63		4	6			408	193	14	1660	103	
2814	11			71		4	6			413	194	12	1678	104	
2938	4			63		2	2			417	191	15	1646	102	
3096	3			63		5	7			389	194	1	2070	128	
3101	2			63		3	6			430	187	3	1945	121	
3105	2			74		4	6			407	193	4	1939	120	
3107	2			69		3	4			395	187	20	1567	97	
3108	2			66		4	5			420	191	17	1608	100	
3127	1			63		4	6			420	190	18	1588	99	
3128	1			58		5	7			415	190	5	1829	113	
3129	1			58		6	7			435	185	22	1541	96	
3130	1			58		7	8			453	183	13	1663	103	
3131	1			58		5	7			418	194	21	1544	96	
3132	1			58		7	8			422	189	16	1614	100	
3133	1			61		5	6			425	189	11	1701	106	
3134	1			61		4	6			425	189	10	1724	107	
3135	1			63		5	7			415	190	7	1774	110	
3136	1			58		5	7			420	188	9	1727	107	
3137	1			63		3	5			399	189	5	1829	113	
3138	1			71		4	6			414	189	2	2049	127	
3139	1			63		4	7			417	184	8	1771	110	
3140	1			61		3	4			452	178	24	1428	89	
STATION AVERAGE 1709 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0															

STATION AVERAGE 1709 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0

FARGO ,		NORTH DAKOTA (LATE)				SEEDED 0/ 0 HARVESTED				1.72200000 SQUARE METERS				
DAYS FROM SOWING TO					L	W	W	1000	OIL IODINE YIELD					
					O	I	I	TEST	SEED					
CI	YEARS	FIRST	FULL	HEIGHT	D	L	L	WT	WT	VALUE	KG	%		
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	CM	G	T	T	G/L	GMS	%	RANK	PER HA	CHECKS
389	43									410		23	1231	95
2522	17									421		22	1242	96
2776	12									421		17	1376	106
2814	10									435		19	1347	104
2938	4									411		2	1817	140
3096	3									428		6	1672	129
3101	2									413		7	1591	122
3105	2									405		4	1707	131
3107	2									434		3	1713	132
3108	2									439		11	1509	116
3127	1									426		20	1324	102
3128	1									423		17	1376	106
3129	1									449		8	1579	122
3130	1									451		15	1480	114
3131	1									435		13	1486	114
3132	1									451		15	1480	114
3133	1									424		9	1538	118
3134	1									427		12	1504	116
3135	1									426		13	1486	114
3136	1									423		10	1515	117
3137	1									424		4	1707	131
3138	1									422		1	1887	145
3139	1									421		21	1318	101
3140	1									482		24	1091	84
STATION AVERAGE 1499 KG PER HECTARE:LSD (.05) = 0 KG/HA. ; F = 0.0														

STATION AVERAGE 1499 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0

TABLE 3. YIELD AND OTHER DATA FOR FLAX VARIETIES AND SELECTIONS GROWN IN REGIONAL TRIALS IN 1985
AT DIFFERENT LOCATIONS--Continued

CARRINGTON,NORTH DAKOTA (EARLY)						SEEDED 0/ 0 HARVESTED 1.77200000 SQUARE METERS									
DAYS FROM SOWING TO					L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD			
CI NUMBER	YEARS GROWN	FIRST BLOOM	FULL BLOOM	HEIGHT MATURITY	CM	D G	L T	L T	WT G/L	WT GMS	%	VALUE	KG RANK	% PER HA	% CHECKS
389	19				53						414		10	1218	107
2522	15				51						418		20	1055	93
2776	14				51						423		16	1139	100
2814	8				58						441		17	1134	100
2938	4				53						424		6	1320	116
3096	3				58						408		7	1309	115
3101	2				51						413		8	1258	111
3105	2				56						407		22	1032	91
3107	2				56						418		5	1354	119
3108	2				53						430		15	1168	103
3127	1				51						414		24	965	85
3128	1				56						419		21	1038	91
3129	1				51						447		9	1241	109
3130	1				51						461		19	1100	97
3131	1				51						417		14	1185	104
3132	1				51						427		18	1117	98
3133	1				53						426		2	1388	122
3134	1				53						423		12	1213	107
3135	1				56						408		3	1360	120
3136	1				53						416		3	1360	120
3137	1				56						371		1	1405	124
3138	1				58						395		13	1196	105
3139	1				56						419		10	1218	107
3140	1				56						459		23	976	86
STATION AVERAGE 1198 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0															

STATION AVERAGE 1198 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0

MINOT, NORTH DAKOTA (EARLY)					SEEDED 0/ 0 HARVESTED 10.00000000 SQUARE METERS										
DAYS FROM SOWING TO					L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD			
CI NUMBER	YEARS GROWN	FIRST BLOOM	FULL BLOOM	MATURITY	HEIGHT CM	D G	L T	L T	WT G/L	WT GMS	%	VALUE	KG RANK	PER HA	% CHECKS
389	19				61	4			624			24	922		80
2522	15				51	1			605			13	1137		98
2776	13				55	2			618			14	1129		97
2814	9				65				643			2	1448		125
2938	5				58				643			3	1382		119
3096	3				62				643			5	1322		114
3101	2				55	1			618			7	1227		106
3105	2				68	2			643			22	1002		86
3107	2				62				631			1	1538		133
3108	2				55	2			605			6	1243		107
3127	1											10	1159		100
3128	1				51	2			609			17	1085		94
3129	1											10	1159		100
3130	1				55	1			618			15	1115		96
3131	1				52	1			612			9	1212		105
3132	1				54	2			599			21	1011		87
3133	1				55	1			605			12	1151		99
3134	1				55	1			618			8	1216		105
3135	1				57	1			637			4	1360		117
3136	1				54	2			609			16	1100		95
3137	1				61	3			631			20	1014		87
3138	1				68				643			18	1080		93
3139	1				66	1			634			19	1072		92
3140	1				66	2			618			23	925		80
STATION AVERAGE 1167 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0															

STATION AVERAGE 1167 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0

WILLISTON, NORTH DAKOTA (EARLY)						SEEDED 0/ 0 HARVESTED 10.00000000 SQUARE METERS									
DAYS FROM SOWING TO					HEIGHT	L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD		
CI	YEARS	FIRST BLOOM	FULL BLOOM	MATURITY	CM	D G	L T	L T	WT G/L	WT GMS	%	VALUE	KG RANK	PER HA	% CHECKS
389	1				46				659			19	351		96
2522	1				40				651			21	340		93
2776	1				36				661			9	420		115
2814	1				53				665			18	352		96
2938	1				41				661			11	393		107
3096	1				43				663			23	309		84
3101	1				36				660			5	444		121
3105	1				46				676			12	391		107
3107	1				45				665			17	376		103
3108	1				38				649			16	377		103
3127	1				36				667			10	404		110
3128	1				34				656			3	450		123
3129	1				35				597			20	349		95
3130	1				37				647			7	427		117
3131	1				38				644			15	381		104
3132	1				39				653			8	421		115
3133	1				36				653			1	456		125
3134	1				39				656			3	450		123
3135	1				40				652			6	429		117
3136	1				40				660			2	452		124
3137	1				40				676			14	385		105
3138	1				41				663			24	291		80
3139	1				40				659			22	319		87
3140	1				40				651			13	386		106
STATION AVERAGE 390 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0															

STATION AVERAGE 390 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0

TABLE 3. YIELD AND OTHER DATA FOR FLAX VARIETIES AND SELECTIONS GROWN IN REGIONAL TRIALS IN 1985
AT DIFFERENT LOCATIONS--Continued

MORDEN,		MANITOBA		(EARLY)	SEEDED 5/23 HARVESTED					3.07000000 SQUARE METERS				
DAYS FROM SOWING TO					L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD		
CI	YEARS	FIRST	FULL	HEIGHT	D	L	L	WT	WT	VALUE		KG		%
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	CM	G	T	T	G/L	GMS	%	RANK	PER HA	CHECKS
389	40	51	95	68	2	1				422	190	11	1358	101
2522	15	50	95	65	2	3				421	196	7	1411	105
2776	13	50	96	61	2	1				410	201	9	1359	101
2814	10	54	99	73	1	2				436	191	21	1230	92
2938	4	50	98	63	2	2				428	199	18	1280	96
3096	3	52	103	63	2	1				417	201	17	1293	97
3101	2	51	98	66	3	1				432	196	1	1544	115
3105	2	53	105	73	1	1				404	192	24	1184	88
3107	2	52	100	66	5	1				426	192	2	1486	111
3108	2	51	95	69	6	1				425	197	18	1280	96
3127	1	50	95	63	3	3				419	202	8	1377	103
3128	1	51	97	64	1	2				418	196	6	1422	106
3129	1	51	96	64	2	2				452	192	14	1326	99
3130	1	50	95	64	2	2				461	189	9	1359	101
3131	1	51	95	64	1	2				432	198	5	1423	106
3132	1	51	95	64	2	1				440	194	12	1343	100
3133	1	50	95	63	2	2				432	194	13	1333	100
3134	1	50	97	64	3	2				418	196	15	1316	98
3135	1	51	95	64	4	1				421	196	16	1307	98
3136	1	50	97	62	3	1				427	196	3	1457	109
3137	1	52	102	66	4	1				418	195	4	1447	108
3138	1	53	104	75	2	1				409	193	22	1210	90
3139	1	52	104	67	2	1				415	194	23	1194	89
3140	1	49	104	66	3	2				473	181	20	1249	93

STATION AVERAGE 1342 KG PER HECTARE;LSD(.05) = 203 KG/HA. ; F = 1.7016

PORTAGE,		MANITOBA		(EARLY)	SEEDED 5/21 HARVESTED					6.13000000 SQUARE METERS				
DAYS FROM SOWING TO					L	W	W	1000						
					O	I	I	TEST	SEED	OIL	IODINE	YIELD		
CI	YEARS	FIRST	FULL	HEIGHT	D	L	L	WT	WT	VALUE		KG		%
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	CM	G	T	T	G/L	GMS	%	RANK	PER HA	CHECKS
389	10	52	103	58	3					423		14	1127	98
2522	10	48	95	54	1					414		16	1104	96
2776	10	48	97	55	2					426		12	1150	100
2814	10	55	122	70	1					433		5	1240	107
2938	5	52	106	57	2					424		4	1245	108
3096	3	53	119	58	2					418		21	900	78
3101	2	48	103	55	2					433		2	1353	117
3105	2	54	113	71	1					409		23	639	55
3107	2	54	109	66	1					426		1	1388	120
3108	2	51	105	55	2					431		6	1223	106
3127	1	48	97	54	1					429		3	1269	110
3128	1	49	96	55	1					424		15	1108	96
3129	1	51	100	56	3					450		13	1131	98
3130	1	50	96	55	2					463		18	1088	94
3131	1	47	95	54	1					425		11	1152	100
3132	1	49	97	55	1					436		19	1052	91
3133	1	49	97	52	1					424		8	1212	105
3134	1	49	96	56	2					429		16	1104	96
3135	1	50	102	55	3					419		10	1160	100
3136	1	50	98	52	2					426		8	1212	105
3137	1	53	111	60	3					427		7	1222	106
3138	1	54	108	70	1					412		24	595	52
3139	1	54	117	62	1					414		22	876	76
3140	1	49	105	55	2					467		20	944	82

STATION AVERAGE 1104 KG PER HECTARE;LSD(.05) = 147 KG/HA. ; F = 13.7615

PORTAGE,		MANITOBA		(LATE)		SEEDED 6/ 5 HARVESTED					3.07000000 SQUARE METERS				
DAYS FROM SOWING TO						L	W	W	1000		OIL IODINE YIELD				
						O	I	I	TEST	SEED					
CI	YEARS	FIRST	FULL	HEIGHT	D	L	L	WT	WT	VALUE	KG		%		
NUMBER	GROWN	BLOOM	BLOOM	MATURITY	CM	G	T	T	G/L	GMS	%	RANK	PER HA	CHECKS	
389	8	55		65	3					417		17	853	90	
2522	8	51		62	1					410		3	1109	117	
2776	8	51		57	2					426		23	725	76	
2814	8	56		67	2					450		2	1113	117	
2938	3	63		59	1					424		8	996	105	
3096	3	54		57	3					433		22	755	79	
3101	2	55		59	2					431		9	976	103	
3105	2	56		62	3					420		21	764	80	
3107	2	56		57	1					439		1	1276	134	
3108	2	56		60	2					429		5	1054	111	
3127	1	52		54	1					413		12	956	101	
3128	1	54		60	1					417		4	1068	112	
3129	1	54		60	2					446		16	855	90	
3130	1	53		60	2					469		18	845	89	
3131	1	51		63	1					423		11	964	101	
3132	1	54		60	1					437		6	1022	108	
3133	1	50		59	1					429		13	891	94	
3134	1	51		60	1					428		14	887	93	
3135	1	52		62	1					425		7	1008	106	
3136	1	51		60	2					423		10	973	102	
3137	1	54		58	4					425		15	865	91	
3138	1	55		62	2					401		20	798	84	
3139	1	55		57	4					429		19	833	88	
3140	1	53		57	4					473		24	659	69	

STATION AVERAGE 927 KG PER HECTARE;LSD(.05) = 115 KG/HA. ; F = 12.3549

TABLE 3. YIELD AND OTHER DATA FOR FLAX VARIETIES AND SELECTIONS GROWN IN REGIONAL TRIALS IN 1985 AT DIFFERENT LOCATIONS--Continued

WINNIPEG, MANITOBA					(EARLY)	SEEDED 5/ 2 HARVESTED 3.55200000					SQUARE METERS				
DAYS FROM SOWING TO						L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD		
CI NUMBER	YEARS GROWN	FIRST BLOOM	FULL BLOOM	MATURITY	HEIGHT CM	D G	L T	L T	WT G/L	WT GMS	%	VALUE RANK	KG PER HA	% CHECKS	
389	16	55		106	65				716	6		20	1706	100	
2522	14	50		106	59				713	5		22	1642	97	
2776	11	50		106	54				712	5		24	1592	94	
2814	8	55		106	74				715	5		6	1855	109	
2938	5	55		106	57				706	5		21	1694	100	
3096	3	57		112	63				713	5		12	1782	105	
3101	2	55		106	59				713	5		4	1878	111	
3105	2	57		112	67				714	6		23	1635	96	
3107	2	55		106	70				709	5		1	2020	119	
3108	2	55		106	62				699	6		19	1734	102	
3127	1	50		106	57				718	5		14	1778	105	
3128	1	55		106	59				714	5		9	1805	106	
3129	1	55		106	61				710	5		3	1915	113	
3130	1	55		106	59				696	5		16	1755	103	
3131	1	50		106	56				706	5		17	1753	103	
3132	1	55		106	58				703	5		15	1774	104	
3133	1	50		106	58				705	6		12	1782	105	
3134	1	50		106	58				709	5		5	1863	110	
3135	1	50		106	62				714	5		10	1798	106	
3136	1	50		106	59				715	5		7	1816	107	
3137	1	57		112	60				714	5		18	1749	103	
3138	1	57		112	68				715	6		11	1784	105	
3139	1	57		112	61				713	5		2	1916	113	
3140	1	55		112	61				689	6		7	1816	107	

STATION AVERAGE 1786 KG PER HECTARE;LSD(.05) = 194 KG/HA. ; F = 1.9478

S'TOON					(EARLY)	SEEDED 5/21 HARVESTED					5.20000000 SQUARE METERS				
DAYS FROM SOWING TO					L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD			
CI NUMBER	YEARS GROWN	FIRST BLOOM	FULL BLOOM	MATURITY	HEIGHT CM	D G	L T	L T	WT G/L	WT GMS	VALUE %	KG RANK	PER HA	% CHECKS	
389	15				53					6		2	1474	114	
2522	15				44					5		21	1237	95	
2776	12				40					5		22	1210	93	
2814	11				55					5		20	1273	98	
2938	5				43					5		19	1274	98	
3096	3				36					5		17	1292	99	
3101	2				45					5		9	1336	103	
3105	2				49					5		5	1428	110	
3107	2				45					5		1	1524	117	
3108	2				47					5		3	1456	112	
3127	1				36					5		24	1108	85	
3128	1				45					5		4	1447	111	
3129	1				48					5		8	1343	103	
3130	1				43					5		13	1314	101	
3131	1				43					5		18	1281	99	
3132	1				45					5		14	1312	101	
3133	1				45					5		15	1300	100	
3134	1				45					5		11	1324	102	
3135	1				47					5		10	1334	103	
3136	1				47					5		6	1383	107	
3137	1				46					5		7	1344	104	
3138	1				53					5		15	1300	100	
3139	1				47					5		12	1317	101	
3140	1				41					6		23	1149	88	

STATION AVERAGE 1324 KG PER HECTARE;LSD(.05) = 144 KG/HA. ; F = 3.6316

LANGDON, NORTH DAKOTA (EARLY)					SEEDED 0/ 0 HARVESTED 10.00000000					SQUARE METERS			
DAYS FROM SOWING TO					L O	W I	W I	TEST	1000 SEED	OIL	IODINE	YIELD	
CI NUMBER	YEARS GROWN	FIRST BLOOM	FULL BLOOM	HEIGHT MATURITY	D CM	L G	L T	WT G/L	WT GMS	VALUE %	KG PER HA		% CHECKS
389	7				66	2		686			20	1848	93
2522	7				62	2		688			14	1938	98
2776	7				59			691			11	2063	104
2814	7				63			697			7	2081	105
2938	5				63	2		684			11	2027	102
3096	3				66			692			6	2099	106
3101	2				64	1		692			10	2045	103
3105	2				70			694			3	2171	110
3107	2				67	2		673			21	1794	90
3108	2				64	4		662			24	1552	78
3127	1				62			692			13	1955	99
3128	1				61	1		689			3	2171	110
3129	1				60	1		670			14	1938	98
3130	1				63			670			12	1992	100
3131	1				60			672			17	1902	96
3132	1				59	1		681			23	1776	90
3133	1				62	1		683			14	1938	98
3134	1				62	1		678			18	1866	94
3135	1				63	1		680			18	1866	94
3136	1				63	1		670			8	2063	104
3137	1				65	1		689			2	2297	116
3138	1				71			696			5	2153	109
3139	1				65			692			1	2314	117
3140	1				63	1		660			21	1794	90

STATION AVERAGE 1985 KG PER HECTARE;LSD(.05) = 0 KG/HA. ; F = 0.0

TABLE 4. SUMMARY OF SEED YIELD IN KILOGRAMS PER HECTARE FOR FLAX LINES GROWN
IN COOPERATIVE REGIONAL NURSERIES IN 1985

				L	C	B	W	F		C	M	W	M	P		W	S	L
				A	R	R	A	A		A	I	I	O	O		I	'	A
				M	O	O	T	R		R	N	L	R	R		N	T	N
				B	O	O	E	G		R	O	L	D	T		N	O	G
				E	K	K	R	O		I	T	I	E	A		I	O	D
				R	S	I	T			N		S	N	G		P	N	O
				T	T	N	O			G		T		E		E		N
				O	O	G	W			T		O				G		
				N	N	S	N			O		N						
OVERALL RANK																		
CI NO	EARLY	LATE	TOTAL	EARLY	EARLY	EARLY	EARLY	EARLY	LATE	EARLY	EARLY	EARLY	EARLY	EARLY	LATE	EARLY	EARLY	EARLY
389	22	23	23	1840	559	2119	1482	1527	1231	1218	922	351	1358	1127	853	1706	1474	1848
2522	23	18	22	1928	590	2012	1358	1582	1242	1055	1137	340	1411	1104	1109	1642	1237	1938
2776	16	22	20	2250	531	2120	1592	1660	1376	1139	1129	420	1359	1150	725	1592	1210	2063
2814	4	11	4	2362	651	2439	1623	1678	1347	1134	1448	352	1230	1240	1113	1855	1273	2081
2938	8	2	5	2181	651	2258	1601	1646	1817	1320	1382	393	1280	1245	996	1694	1274	2027
3096	11	16	10	2213	607	1996	1617	2070	1672	1309	1322	309	1293	900	755	1782	1292	2099
3101	2	5	2	2308	618	2147	1611	1945	1591	1258	1227	444	1544	1353	976	1878	1336	2045
3105	20	10	21	2159	574	2150	1520	1939	1707	1032	1002	391	1184	639	764	1635	1428	2171
3107	1	1	1	2353	674	2398	1568	1567	1713	1354	1538	376	1486	1388	1276	2020	1524	1794
3108	21	6	19	1654	687	2152	1669	1608	1509	1168	1243	377	1280	1223	1054	1734	1456	1552
3127	12	20	13	2530	571	2536	1433	1588	1324	965	1159	404	1377	1269	956	1778	1108	1955
3128	9	13	9	2277	562	2257	1466	1829	1376	1038	1085	450	1422	1108	1068	1805	1447	2171
3129	17	14	15	1921	562	2244	1523	1541	1579	1241	1159	349	1326	1131	855	1915	1343	1938
3130	18	19	18	2120	639	1834	1636	1663	1480	1100	1115	427	1359	1088	845	1755	1314	1992
3131	14	12	14	2222	558	2219	1492	1544	1486	1185	1212	381	1423	1152	964	1753	1281	1902
3132	19	7	17	2290	617	2049	1579	1614	1480	1117	1011	421	1343	1052	1022	1774	1312	1776
3133	6	15	8	2146	532	2450	1623	1701	1538	1388	1151	456	1333	1212	891	1782	1300	1938
3134	10	17	11	2326	589	2382	1463	1724	1504	1213	1216	450	1316	1104	887	1863	1324	1866
3135	7	8	7	2188	594	2106	1699	1774	1486	1360	1360	429	1307	1160	1008	1798	1334	1866
3136	5	9	6	2069	618	2266	1592	1727	1515	1360	1100	452	1457	1212	973	1816	1383	2063
3137	3	4	3	2130	597	2380	1631	1829	1707	1405	1014	385	1447	1222	865	1749	1344	2297
3138	15	3	12	2059	590	2284	1712	2049	1887	1196	1080	291	1210	595	798	1784	1300	2153
3139	13	21	16	1962	582	2184	1623	1771	1318	1218	1072	319	1194	876	833	1916	1317	2314
3140	24	24	24	1702	633	2253	1625	1428	1091	976	925	386	1249	944	659	1816	1149	1794
0																		
AVERAGE				2133	599	2218	1572	1709	1499	1198	1167	389	1341	1104	927	1785	1323	1985

TABLE 5. SUMMARY OF SEED YIELD IN PERCENT OF THE MEAN OF THE 4 CHECK VARIETIES
DURING 1985

				L	C	B	W	F		C	M	W	M	P		W	S	L
				A	R	R	A	A		A	I	I	O	O		I	'	A
				M	O	O	T	R		R	N	L	R	R		N	T	N
				B	O	O	E	G		R	O	L	D	T		N	O	G
				E	K	K	R	O		I	T	I	E	A		I	O	D
				R	S	I	T			N		S	N	G		P	N	O
				T	T	N	O			G		T		E		E		N
				O	O	G	W			T		O				G		
				N	N	S	N			O		N						
OVERALL AVERAGE																		
CI NO	EARLY	LATE	TOTAL	EARLY	EARLY	EARLY	EARLY	EARLY	LATE	EARLY	EARLY	EARLY	EARLY	EARLY	LATE	EARLY	EARLY	EARLY
389	97	93	96	88	96	98	98	95	95	107	80	96	101	98	90	100	114	93
2522	96	105	97	92	101	93	90	98	96	93	98	93	105	96	117	97	95	98
2776	101	93	100	107	91	98	105	103	106	100	97	115	101	100	76	94	93	104
2814	107	109	107	113	112	112	107	104	104	100	125	96	92	107	117	109	98	105
2938	105	125	107	104	112	104	106	102	140	116	119	107	96	108	105	100	98	102
3096	104	108	104	106	104	92	107	128	129	115	114	84	97	78	79	105	99	106
3101	109	114	109	110	106	99	106	121	122	111	106	121	115	117	103	111	103	103
3105	98	110	100	103	98	99	100	120	131	91	86	107	88	55	80	96	110	110
3107	111	133	113	112	116	110	104	97	132	119	133	103	111	120	134	119	117	90
3108	98	114	100	79	118	99	110	100	116	103	107	103	96	106	111	102	112	78
3127	103	101	103	121	98	117	95	99	102	85	100	110	103	110	101	105	85	99
3128	104	109	105	109	96	104	97	113	106	91	94	123	106	96	112	106	111	110
3129	100	108	101	92	96	103	101	96	122	109	100	95	99	98	90	113	103	98
3130	100	103	100	101	110	84	108	103	114	97	96	117	101	94	89	103	101	100
3131	101	109	102	106	96	102	99	96	114	104	105	104	106	100	101	103	99	96
3132	99	111	100	109	106	94	104	100	114	98	87	115	100	91	108	104	101	90
3133	105	108	105	102	91	113	107	106	118	122	99	125	100	105	94	105	100	98
3134	104	106	104	111	101	110	97	107	116	107	105	123	98	96	93	110	102	94
3135	105	111	105	104	102	97	112	110	114	120	117	117	98	100	106	106	103	94
3136	106	111	106	99	106	104	105	107	117	120	95	124	109	105	102	107	107	104
3137	107	114	108	102	102	110	108	113	131	124	87	105	108	106	91	103	104	116
3138	101	119	103	98	101	105	113	127	145	105	93	80	90	52	84	105	100	109
3139	101	96	101	94	100	101	107	110	101	107	92	87	89	76	88	113	101	117
3140	93	78	92	81	109	104	107	89	84	86	80	106	93	82	69	107	88	90
0																		

TABLE 6. STATE AVERAGES

CI	MINNESOTA			SOUTH DAKOTA			NORTH DAKOTA			MANITOBA			OTHERS			ALL STATIONS		
	EARLY	LATE	ALL	EARLY	LATE	ALL	EARLY	LATE	ALL	EARLY	LATE	ALL	EARLY	LATE	ALL	EARLY	LATE	ALL
OVER 1 YEARS																		
389	1199	0	1199	1800	0	1800	1173	1231	1182	1397	853	1261	1474	0	1474	1348	1042	1307
2522	1259	0	1259	1685	0	1685	1210	1242	1215	1385	1109	1316	1237	0	1237	1333	1175	1312
2776	1390	0	1390	1856	0	1856	1282	1376	1297	1367	725	1206	1210	0	1210	1401	1050	1354
2814	1506	0	1506	2031	0	2031	1338	1347	1340	1441	1113	1359	1273	0	1273	1489	1230	1455
2938	1416	0	1416	1929	0	1929	1353	1817	1430	1406	996	1303	1274	0	1274	1457	1406	1451
3096	1410	0	1410	1806	0	1806	1421	1672	1463	1325	755	1182	1292	0	1292	1446	1213	1415
3101	1463	0	1463	1879	0	1879	1383	1591	1418	1591	976	1437	1336	0	1336	1516	1283	1485
3105	1366	0	1366	1835	0	1835	1307	1707	1373	1152	764	1055	1428	0	1428	1371	1235	1353
3107	1513	0	1513	1983	0	1983	1325	1713	1390	1631	1276	1542	1524	0	1524	1541	1494	1535
3108	1170	0	1170	1910	0	1910	1189	1509	1242	1412	1054	1322	1456	0	1456	1369	1281	1357
3127	1550	0	1550	1984	0	1984	1214	1324	1232	1474	956	1345	1108	0	1108	1436	1140	1396
3128	1419	0	1419	1861	0	1861	1314	1376	1324	1445	1068	1350	1447	0	1447	1455	1222	1424
3129	1241	0	1241	1883	0	1883	1245	1579	1301	1457	855	1306	1343	0	1343	1399	1217	1375
3130	1379	0	1379	1735	0	1735	1259	1480	1296	1400	845	1261	1314	0	1314	1387	1162	1357
3131	1390	0	1390	1855	0	1855	1244	1486	1285	1442	964	1323	1281	0	1281	1409	1225	1384
3132	1453	0	1453	1814	0	1814	1187	1480	1236	1389	1022	1297	1312	0	1312	1381	1251	1363
3133	1339	0	1339	2036	0	2036	1326	1538	1362	1442	891	1304	1300	0	1300	1462	1214	1429
3134	1457	0	1457	1922	0	1922	1293	1504	1328	1427	887	1292	1324	0	1324	1448	1195	1415
3135	1391	0	1391	1902	0	1902	1357	1486	1379	1421	1008	1318	1334	0	1334	1459	1247	1431
3136	1343	0	1343	1929	0	1929	1340	1515	1369	1495	973	1364	1383	0	1383	1470	1244	1440
3137	1363	0	1363	2005	0	2005	1386	1707	1439	1472	865	1320	1344	0	1344	1494	1286	1466
3138	1324	0	1324	1998	0	1998	1353	1887	1442	1196	798	1096	1300	0	1300	1407	1342	1399
3139	1272	0	1272	1903	0	1903	1338	1318	1335	1328	833	1204	1317	0	1317	1411	1075	1366
3140	1167	0	1167	1939	0	1939	1101	1091	1100	1336	659	1167	1149	0	1149	1298	875	1242
OVER 2 YEARS																		
389	959	0	959	1883	0	1883	1259	760	1159	1514	1267	1432	1046	0	1046	1296	1064	1259
2522	938	0	938	1882	0	1882	1218	745	1123	1531	1489	1517	1043	0	1043	1282	1191	1267
2776	1030	0	1030	2003	0	2003	1275	811	1182	1526	1263	1438	968	0	968	1325	1082	1286
2814	1076	0	1076	2107	0	2107	1323	730	1205	1667	1163	1499	1023	0	1023	1401	989	1335
2938	1092	0	1092	2103	0	2103	1396	1051	1327	1637	1574	1616	1060	0	1060	1424	1364	1415
3096	1147	0	1147	1981	0	1981	1446	998	1356	1618	1418	1551	1102	0	1102	1439	1250	1408
3101	1057	0	1057	2029	0	2029	1410	973	1323	1744	1372	1620	1090	0	1090	1440	1212	1403
3105	1120	0	1120	1988	0	1988	1361	913	1271	1448	1067	1321	1067	0	1067	1364	1005	1306
3107	1185	0	1185	2011	0	2011	1366	962	1285	1741	1253	1578	1160	0	1160	1461	1137	1409
3108	1068	0	1068	1986	0	1986	1247	874	1172	1603	1365	1523	1128	0	1128	1359	1168	1328
OVER 3 YEARS																		
389	957	507	888	1744	0	1744	1272	671	1152	1563	1228	1443	990	0	990	1263	916	1195
2522	991	720	949	1786	0	1786	1253	631	1128	1610	1480	1564	1080	0	1080	1292	1073	1249
2776	1048	733	999	1934	0	1934	1364	661	1223	1598	1306	1494	967	0	967	1338	998	1271
2814	1105	544	1018	2019	0	2019	1363	649	1220	1671	1142	1482	1028	0	1028	1384	874	1284
2938	1115	816	1069	2017	0	2017	1456	819	1329	1721	1516	1648	1211	0	1211	1448	1167	1393
3096	1137	799	1085	1901	0	1901	1490	773	1346	1699	1436	1605	1097	0	1097	1433	1109	1370

TABLE 7. SUMMARY OF AGRONOMIC DATA OTHER THAN YIELD FOR CULTIVARS OF FLAX GROWN IN THE COOPERATIVE REGIONAL TRIALS IN 1985

CULTIVAR OR C.I. NO.	DAYS FROM SOWING TO			HEIGHT (CM)	LODGING RATING (1 = BEST)	TEST WEIGHT AVG. (g/L)	SEED WEIGHT AVG. (g/1000)
	FIRST BLOOM	FULL BLOOM	MATURITY				
	AVG. (DAYS)	AVG. (DAYS)	AVG. (DAYS)				
BISON	55	56	102	60	3.0	671	6.1
LINOTT	54	54	100	54	1.6	664	5.6
CULBERT	54	54	100	53	1.8	670	5.7
DUFFERIN	57	57	105	64	.7	680	5.5
2938	55	55	103	55	1.9	673	5.3
3096	55	55	105	57	1.0	677	5.4
3101	54	56	103	56	1.9	670	5.6
3105	57	57	105	63	1.2	681	5.8
3107	57	56	104	60	2.1	669	5.6
3108	54	56	102	58	3.5	653	6.1
3127	63	54	100	54	1.5	692	5.8
3128	54	55	100	54	1.6	667	5.7
3129	63	56	101	55	2.2	659	5.5
3130	54	56	100	54	1.3	657	5.7
3131	53	56	100	54	.9	658	5.5
3132	54	56	100	54	1.7	659	5.6
3133	54	55	100	54	1.4	661	5.9
3134	54	55	101	55	1.8	665	5.7
3135	54	56	101	57	2.6	670	5.4
3136	54	55	101	55	2.1	663	5.5
3137	56	55	105	58	3.0	677	5.7
3138	56	57	105	63	.9	679	5.8
3139	56	56	105	58	1.1	674	5.6
3140	53	52	105	57	2.3	654	6.4
NO. OF TESTS	4	2	4	14	5	3	2

TABLE 8. SUMMARY OF RESISTANCE TO FUSARIUM WILT AND PASMO FOR CULTIVARS OF FLAX GROWN IN THE COOPERATIVE REGIONAL TRIALS IN 1985

CULTIVAR OR C.I. NO.	1985			TWO-YEAR MEAN		THREE-YEAR MEAN		PASMO, 1985
	FARGO, ND		MORDEN MAN.	FARGO ND	ST. PAUL MN	FARGO ND	MORDEN MAN.	LAMBERTON MN
	1ST DATE	2ND DATE						
BISON	2	4	1	5.3	4.8	5.2	3.0	5
LINOTT	7	9	3	8.4	6.1	7.9	3.0	4
CULBERT	4	6	1	6.5	2.8	5.7	3.7	4
DUFFERIN	4	6	2	6.2	2.2	5.5	4.0	5
2938	2	2	2	1.2	1.8	1.1	4.0	5
3096	5	7	1	7.2	3.8	6.8		4
3101	3	6	1	6.8				3
3105	4	6	1	7.0				3
3107	3	4	1	2.9				7
3108	4	5	1	6.6				6
3127	4	6	3					4
3128	5	7	2					4
3129	6	7	2					4
3130	7	8	2					4
3131	5	7	2					4
3132	7	8	1					4
3133	5	6	2					4
3134	4	6	2					4
3135	5	7	1					4
3136	5	7	1					4
3137	3	5	1					4
3138	4	6	1					4
3139	4	7	1					3
3140	3	4	2					4

TABLE 9. SUMMARY OF OIL PERCENTAGES FOR CULTIVARS OF FLAX GROWN IN THE COOPERATIVE REGIONAL TRIALS IN 1985, 2- AND 3-YEAR MEAN

CULTIVAR OR C.I. NO.	LAMB. MN (E)	BRK. SD (E)	WAT. SD (E)	FARGO ND (E)	FARGO ND (L)	CAR. ND (E)	MOR. MAN. (E)	POR. MAN. (E)	POR. MAN (L)	MEAN 9 LOC.	TWO- YEAR MEAN	THREE- YEAR MEAN
389	40.5	39.8	40.6	40.5	41.0	41.4	42.2	42.3	41.7	41.1	41.0	40.4
2522	41.2	40.9	41.2	41.0	42.1	41.8	42.1	41.4	41.0	41.4	41.5	41.1
2776	41.6	41.2	41.4	40.8	42.1	42.3	41.0	42.6	42.6	41.8	41.8	41.5
2814	42.8	42.3	42.2	41.3	43.5	44.8	43.6	43.3	45.0	43.1	42.6	42.2
2938	41.0	41.5	41.3	41.7	41.1	42.4	42.8	42.4	42.4	41.8	42.0	41.6
3096	41.7	41.6	43.6	38.9	42.8	40.8	41.7	41.8	43.3	41.8	42.1	41.7
3101	42.4	41.8	42.0	43.0	41.3	41.3	43.2	43.3	43.1	42.4	42.6	
3105	41.2	40.4	40.7	40.7	40.5	40.7	40.4	40.9	42.0	40.8	41.0	
3107	41.4	40.7	41.5	39.5	43.4	41.8	42.6	42.6	43.9	41.9	41.9	
3108	40.6	42.1	42.7	42.0	43.9	43.0	42.5	43.1	42.9	42.5	42.6	
3127	39.3	41.2	41.2	42.0	42.6	41.4	41.9	42.9	41.3	41.5		
3128	41.8	41.6	41.2	41.5	42.3	41.9	41.8	42.4	41.7	41.8		
3129	41.6	43.8	43.7	43.5	44.9	44.7	45.2	45.0	44.6	44.1		
3130	45.2	44.0	45.2	45.3	45.1	46.1	46.1	46.3	46.9	45.6		
3131	42.2	41.3	42.0	41.8	43.5	41.7	43.2	42.5	42.3	42.3		
3132	43.0	42.1	42.5	42.2	45.1	42.7	44.0	43.6	43.7	43.2		
3133	42.4	42.1	42.3	42.5	42.4	42.6	43.2	42.4	42.9	42.5		
3134	42.5	41.5	41.8	42.5	42.7	42.3	41.8	42.9	42.8	42.3		
3135	41.9	40.7	41.1	41.5	42.6	40.8	42.1	41.9	42.5	41.7		
3136	41.7	41.3	41.5	42.0	42.3	41.6	42.7	42.6	42.3	42.0		
3137	41.3	41.1	41.1	39.9	42.4	37.1	41.8	42.7	42.5	41.1		
3138	40.7	40.7	40.8	41.4	42.2	39.5	40.9	41.2	40.1	40.8		
3139	41.8	40.8	41.0	41.7	42.1	41.9	41.5	41.4	42.9	41.7		
3149	45.8	45.4	44.9	45.2	48.2	45.9	47.3	46.7	47.3	46.3		

TABLE 10. SUMMARY OF IODINE VALUES FOR FLAXSEED PRODUCED AT FOUR LOCATIONS IN THE 1985 REGIONAL TRIALS

CULTIVAR OR C.I. NO.	LABERTON MN	WATERTOWN SD	FARGO ND	MORDEN MAN.	MEAN 4 LOC.
389	176	188	181	190	184
2522	181	193	189	196	190
2776	187	198	193	201	195
2814	187	195	194	191	192
2938	180	190	191	199	190
3096	191	194	194	201	195
3101	183	192	187	196	190
3105	182	192	193	192	190
3107	182	192	187	192	188
3108	180	192	191	197	190
3127	182	188	190	202	191
3128	181	191	190	196	190
3129	181	187	185	192	186
3130	173	180	183	189	181
3131	187	192	194	198	193
3132	181	184	189	194	187
3133	182	187	189	194	188
3134	183	186	189	196	189
3135	186	190	190	196	191
3136	183	189	188	196	189
3137	182	189	189	195	189
3138	184	192	189	193	190
3139	182	189	184	194	187
3140	173	179	178	181	178

TABLE 11.--RUST EVALUATION, 1985 FLAX REGIONAL TRIAL

Flax Cultivar	Rust Race									
	371	1	22	191	259	263	358	X-3 [†]	X-23 [†]	218S61 [†]
389	S	S	S	S	S	S	S	S	S	S
2522	R	R	S	R	R	R	R	S	R	S
2776	R	R	S	S	S	S	R	S	R	S
2814	R	R	S	R	R	R	R	R	R	R
2938	R	R	S	S	S	S	R	S	R	S
3096	R	R	S	S	S	S	R	S	R	S
3101	R	R	S	S	S	S	R	S	R	S
3105	R	R	S	R	R	R	R	R	R	R
3107	R	R	S	S	S	R	R	S	R	S
3108	R	R	S	R	R	R	R	S	R	S
3127	R	R	S	S	S	S	R	S	R	MS
3128	R	R	S	R	R	R	R	S	R	S
3129	S	R	S	S	S	S	S	S	R*	R
3130	S	R	S	R	S	S	S	S	S	MS
3131	R	R	S	S	S	S	R	S	R	S
3132	S	R	S	S	S	S	S	S	R*	S
3133	R	R	S	S	S	S	R	S	R	S
3134	R	R	S	S	S	S	R	S	R	S
3135	R	R	S	S	S	S	R	S	R	S
3136	R	R	S	S	S	S	R	S	R	MS
3137	R	R	S	R	R	R	R	R	R	R
3138	R	R	S	R	R	R	R	R	R	R
3139	R	R	S	R	R	R	R	R	R	R
3140	R	R	R	R	R	R	R	R	R	R

R* = Some susceptible plants, possible segregation.

† = Tester races developed by G. Statler (N.D. Farm Res. 39(2):5-7, 1981).

Reactions of cultivars to tester races X-10 and 218S61 omitted due to contamination.

X-3 = 20 x 18 = virulent on K L₄L₅L₆L₇L₈L₉L₁₁ MM₁M₃M₄ PP₁

X-23 = 22 x 218 = virulent on LL₅L₆L₇L₁₁ M₁M₂M₃M₄M₅ N₁N₂ P₁P₄

218S61 = Self of 218 = virulent on L₅L₆L₇L₈L₉L₁₁ MM₁M₂M₃M₄ N₁ P₁

